

Restoration and structural consolidation of a summer mountain pasture in the Lanzo Valley

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During the last century Piedmont's Alps have been interested by strong emigration with a progressive depopulation of the valleys, carelessness of summer mountain pastures and environment degradation.

This happened also in the Lanzo Valleys, where closeness to big Turin's factories and lack of resources widened the scope of the problem.

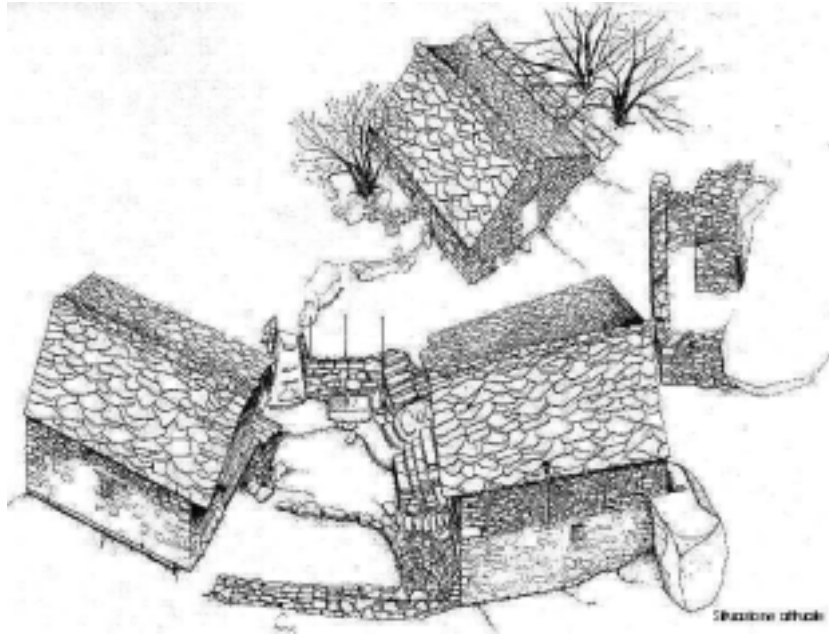
Where once upon a time also the smallest spots were overworked, now brushwood is taking over the land. At middle and high altitudes have been saved only the villages where the richness of pastures makes the restoration of old buildings still convenient.

The work idea originated from a direct observation of reality; I intended to offer a contribution to the preservation of alpine heritage through a study of the environment and a proposal for the recovery of spaces and buildings still usable for pastoral activities.

Therefore I took into consideration the main aspects of these valleys' territory, so as to focus on the specific subject of my research: the analysis of middle and high altitude architecture and, in particular, of a single village representative of this reality. The study and consolidation project are meant to be just an approach to a generalised problem.

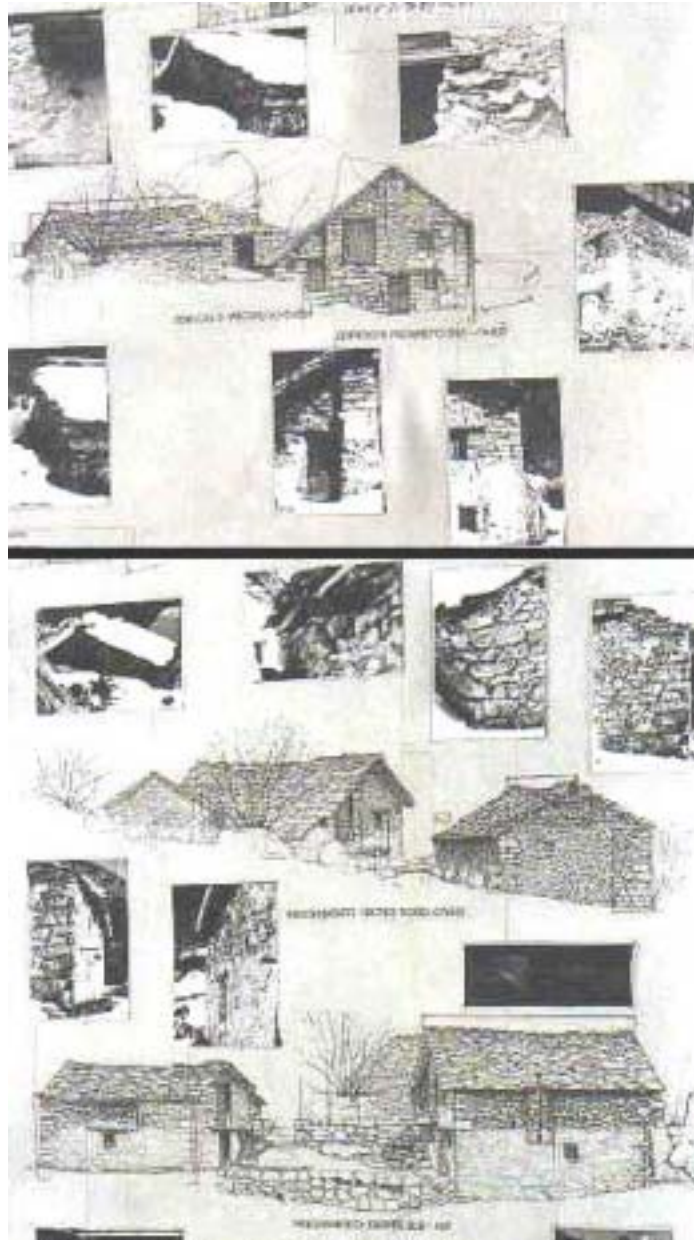
The work is divided into four phases.

The first step aims at describing the main aspects of the situation encompassing the whole district of the Lanzo Valleys.....

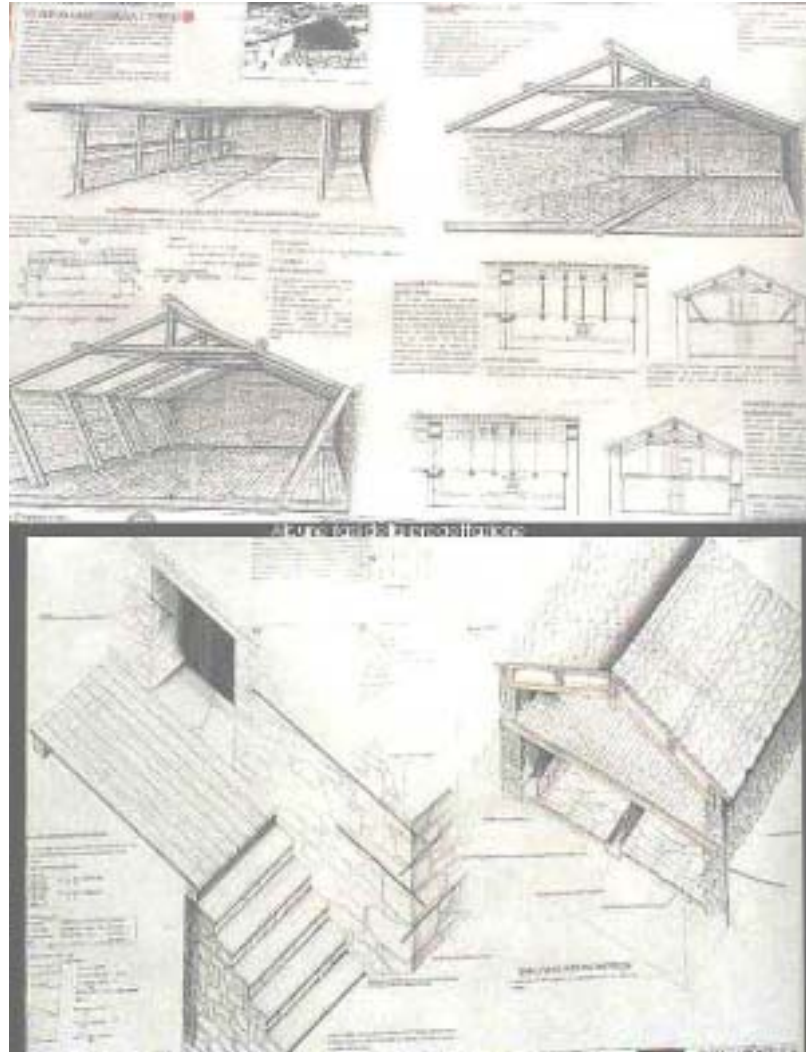


Then the analysis focuses on a village called "Benne" (1466 mt, municipality of Groscavallo), located in the Lanzo Val Grande and placed on the small natural terrace of a mountain slope. It is composed of four buildings, one of which collapsed many years ago. The choice is due to different factors: first of all the village is a valid example of the local reality; moreover, its good position and state of buildings should enable a rebirth of pastoral activities. In this phase architectural, distributive and construction characteristics of the whole group of buildings have been analysed. Then the main structural problems have been studied from a quality point of view, highlighting those calling for a check by calculation procedures.

Calculations have been made in the third part of the work using the method of admissible tension in compliance with the ministerial laws (DM 20.11.1987 and DM n° 18407, 3.10.1978). From the results I was able to assess the structural degradation level and grasp the working of the construction system.



The last phase focuses on the consolidation of structures. Only one of the three buildings, i.e. the most representative, has been inspected. The consolidation project considers several parameters such as architectural, structural and construction characters, materials adopted, destination of spaces, and geographic location of the village.



In this way, a consolidation programme has been worked out following peremptory standards of conservation of the existing values and using materials compatible with the original ones. This choice means to safeguard not only form and beauty, but also the very construction system. Only two concrete stringcourses have been introduced at the top of longitudinal walls and some new steel transversal chains.

Yet, wooden structure of floors and roof have been reinforced using wooden material and adopting special precautions.

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